

REMARKS

Claims 1-7 and 9-20 are pending. Claim 8 is canceled without prejudice or disclaimer of its subject matter, and new claims 9-20 are added.

DRAWINGS

The Office action objects to the drawings and requires proposed drawing corrections or corrected drawings.

In response Applicants have submitted proposed drawing corrections for FIG. 2 and for FIG. 3 (the Examiner objection to FIG. 1 is understood as directed to FIG. 2). The proposed drawing corrections remove a line between apertures 281 and 284; correct a typo by adding V to G4; change V_{DYN} to V_{foc2} (DYN); and connect element 45(G2) to V_{G2} . No new matter is added by the proposed drawing corrections. Approval of the annotated proposed drawing corrections and withdrawal of the objections to the drawings is respectfully requested.

Rejections of Claims 1-8

under 35 U.S.C. §112, second paragraph

The Office Action rejects claims 1-8 under 35 U.S.C. §112, second paragraph. Claims 1 and 3 are amended in conformance with 35 U.S.C. §112, second paragraph. Furthermore, claims 2-7 are amended for non-statutory reasons: to replace European claim phraseology with U.S. claim language. The claims are not narrowed in scope and no new matter is added. Additionally, claim 8 is cancelled in view of the language of claim 1.

Accordingly, withdrawal of the 35 U.S.C. §112, second paragraph rejection of claims 1-7 is respectfully requested.

Rejections of Claims 1-3, 5, 6, and 8

under 35 U.S.C. §102(b) based on Noguchi

The Office Action rejects claims 1-3, 5, 6, and 8 under 35 U.S.C. §102(b) over Noguchi (US 5,734,235, hereinafter Noguchi). Applicants respectfully traverse this

rejection.

Claim 1 is patentable under 35 USC §102(b) at least because it recites an electron gun with a means for generating an auxiliary lens field between a pre-focusing lens field and a main lens field such that the intensity of the auxiliary lens field causes electron beams to leave the main lens field substantially parallel to the in-line plane, and such that the diameter of the electron beams throughout the deflection of the electron beams across the display screen is smaller than or substantially equal to the diameter of an aperture of a second electrode.

Noguchi discloses an electron gun in which a focus electrode and an accelerating electron form a first electron lens for focusing electron beams stronger in a horizontal direction than in a vertical direction, and a focus corrective electrode that forms a second electron lens that cooperates with the focus electrode for focusing electron beams stronger in a vertical direction than in the horizontal direction.

However, nowhere does Noguchi teach, discuss, or suggest forming electron beams that maintain a diameter less than an aperture in a second electrode (as measured from the cathode) as the electron beam is deflected across the display screen.

Thus independent claim 1 is allowable over Noguchi. Furthermore, claims 2, 3, 5, and 6 which depend from claim 1, are also allowable. Claim 8 is cancelled in view of claim 1. Accordingly, withdrawal of the U.S.C. §102(b) rejections of claims 1-3 and 5-6 based on Noguchi is respectfully requested.

Rejections of Claims 1-3, 5, 6, and 8
under 35 U.S.C. §102(b) based on Son

The Office Action rejects claims 1-3, 5, 6, and 8 under 35 U.S.C. §102(b) over Son (US 5,404,071, hereinafter Son). Applicants respectfully traverse this rejection.

Claim 1 is patentable under 35 USC §102(b) at least because it recites an electron gun with a means for generating an auxiliary lens field between a pre-focusing lens field and a main lens field such that the intensity of the auxiliary lens field causes electron beams to leave the main lens field substantially parallel to the

in-line plane, and such that the diameter of the electron beams throughout the deflection of the electron beams across the display screen is smaller than or substantially equal to the diameter of an aperture of a second electrode.

Son discloses an electron gun having a main lens, a focusing lens (lenses), and an auxiliary lens. The auxiliary lens forms quadruple lenses of opposing polarities. The auxiliary lenses are formed by sets of elongated apertures and dynamic and static voltages. The auxiliary lenses deform electron beams into vertically elongated and then horizontally elongated shapes (or horizontally elongated and then vertically elongated shapes).

However, nowhere does Son teach, discuss, or suggest forming electron beams that maintain a diameter less than an aperture in a second electrode (as measured from the cathode) as the electron beam is deflected across the display screen.

Thus independent claim 1 is allowable over Son. Furthermore, claims 2, 3, 5, and 6 which depend from claim 1, are also allowable. Claim 8 is cancelled in view of claim 1. Accordingly, withdrawal of the U.S.C. §102(b) rejections of claims 1-3 and 5- 6 based on Son is respectfully requested.

New Claims 9-20

New claims 9-20 are added. Those claims include recitations related to combinations of common electrodes, common electrode openings, and applied voltages that are not taught by or suggested in the cited references.

Allowed subject matter: Claim 7

The Office action objects to claim 7 as depending from a rejected base claim, but states that it would be allowable if rewritten in the independent form including limitations of the base claim and any intervening claims. Applicants thank the Examiner for this indication of patentable subject matter.

CONCLUSION

In view of the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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